V. *On the Aſcarides diſcovered in the Pelecanus Carbo and P. criſtatus. By Richard Pulteney, M. D. F. R. S. and L. S.*

Read November 6, 1798.

THE liberty I now take of troubling the Society, with what may appear to many a trifling object, is, however, one among many other proofs of the utility of its inſtitution; as affording a repoſitory, or centre of communication, always open for the reception of detached tracts in Natural Hiſtory; which, if deemed of ſmall importance in ſuch inſtances as the preſent, is more than balanced by the utility of others that might be entirely buried in oblivion, for want of a ready and convenient mode of introduction to the public, without the obligation of writing a formal diſſertation which perhaps neither time, nor want of proper aid by acceſs to books, may allow.—In that ſituation I now wiſh to be regarded, and indulged, by this Society.

Having lately heard a gentleman, remarkable for his ſkill as a ſportſman, and not leſs curious in his obſervations, relate that he had more than once, on opening the crop of the Corvorant (*Pelecanus Carbo*, Linn.), found a large quantity of worms in it, I engaged him to ſend me a few. He informed me, that they lay coiled together into a ball or congeries (as I believe is uſually the caſe) of a large ſize, in ſome equal to that of an egg. It was not, however, from the *Corvorant* only, but from the *Shag* alſo, that theſe worms were taken. They were promiſcuouſly put into a phial, and do not

appear to differ. In the recent ſtate they were of a browniſh-yellow caſt, having loſt much of the colour ſince they were put into the brandy and water. This gentleman, and the party with him, killed at the time upwards of twenty of theſe birds, in every one of which worms of this kind were found; and, what appears worthy of attention, is, that they were diſcovered, together with ſmall pebbles, and fragments of wood, in the crops of *young Shags*, that had never been out of the neſt.

A few of theſe animals will be preſented to the Society with this paper, and I think it will appear that they are all of the kind called *Aſcarides*, the ſpecies of which, or at leaſt the different ſpecies of animals in which the ſame is found, have been diſcovered, of late years, to be greatly more numerous than was formerly known; obſervations relating to worms in the inteſtines of animals having been almoſt wholly confined to thoſe found in the human ſpecies.

Linnæus deſcribes only two *Aſcarides*, for the characters of which I need only refer to the *Syſtema Naturæ*. It is to the diſcoveries of later authors that we owe the knowledge of a much greater number, and find them now inhabiting a great variety of ſubjects throughout the different claſſes of the animal kingdom. It is well known that Redi was the firſt writer who augmented the knowledge left us by the Antients, or who extended enquiries on the ſubject of *Animalcula* which infeſt the bodies of living animals. He mentions the *Aſcarides* of the Eagle, the Raven, the Swan, the Crane, and of ſeveral others*. After his time, ſcattered obſervations only were recorded, and many years intervened before any conſiderable advances were made in this branch of ſcience, howſoever cloſely connected with the well-being of mankind.

* *Fr. Redi*, de Animalculis vivis, quæ in Corporibus Animalium vivorum reperiuntur, Obſervationes. *Amſtelod.* 1708. 12mo.

Among the more modern publications, that of M. Pallas unqueſtionably holds a diſtinguiſhed rank. His *Theſis de infeſtis viventibus intra viventia*, printed at Leyden in 1760, is an elaborate diſquiſition on this ſubject, and is worthy of being particularly noticed, as containing not only very complete deſcriptions and ſpecific differences of worms infeſting the body of man, but alſo a collected ſeries of the moſt uſeful knowledge of preceding writers, with the various modes of extirpating theſe pernicious inmates.

To the almoſt unparalleled induſtry of Otto Frederic Müller the greateſt merit is due, for his accurate deſcription of the *Helminthic* order: and, probably, we owe to the Royal Society of Copenhagen, two publications which have ſince ſo much extended the knowledge of the preſent day, on the ſubject of my paper. The *Premium*, of which I give the title below *, held forth by this Society, excited the diligence of M. Bloch of Berlin, and M. Goeze, to both of whom prizes were aſſigned. M. Bloch publiſhed his Diſſertation, which was tranſlated into French, under the title below recited †; the latter publiſhed a Deſcription of the ſame animals, in quarto, *p.* 471. in the German language, with 44 plates. Gmelin, in his enlarged edition of the *Syſtema Naturæ*, has enumerated ſeventy-eight ſpecies of *Aſcarides*, having arranged them according to the claſſes of animals in which they exiſt; of which, twenty-four ſpecies of birds are found to be infeſted with theſe worms. Thoſe I now ſend are an addition to that number. M. Goeze alone, from references to his work in Gmelin, appears to have deſcribed upwards of twenty.

* An, Seminium vermium inteſtinalium, Teniæ, Gordii, Aſcaridis, Faſciolæ, &c. animalibus connatum; an, ab extus intromiſſum; obſervationibus, et argumentis probare remediaque in illo caſu recenſere.

† Traité de la Generation des Vers des Inteſtines et des Vermifuges. *Straſburgh*, 1788. 8vo. *p.* 127. *tab.* x. firſt printed in German at Berlin in 1782.

Aſcarides

Ascarides before unnoticed; exclusive of nine or ten kinds of the newly-named genus *Echinorynchus*, so nearly allied to the *ascaris*, as to be heretofore classed under the same name.

From this general view of this subject, there is little room to doubt, that *Ascarides* exist in a variety of other animals as yet unexamined: and although Gmelin does not refer any to the class of insects, I am assured by my friend Aylmer B. Lambert, Esq. that he saw a living worm crushed out of the body of the *Carabus hortensis*.